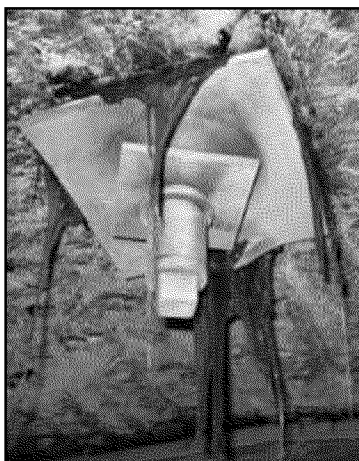


# PUR70 Polyurethane Resin

PUR70 Polyurethane Resin is a two-component polyurethane resin system that can be processed through low or high pressure dispensing equipment. When properly mixed at a ratio of one to one, PUR70 cures to a rigid polymer with high physical properties, resistance to water and chemical attack, and long term durability.



The fast reactivity of PUR70 is used to stop high water flows and consolidate loose rock strata.

The product's high adhesive strength, outstanding mechanical properties and flexibility create an excellent bond with the strata. When injected into the strata for preventive or curative purposes, the low viscosity mixture remains liquid for several seconds and penetrates into the smallest fissures. The polyurethane then expands, sets and effectively consolidates and seals the threaded zone.

PUR70 can be applied with various types of dual piston pumps.

Technical Data – Solid Cured PUR70 Polymer Resin

		TEST METHOD
DENSITY, lb/ft <sup>3</sup> (kg/m <sup>3</sup> )	70 (1121)	ASTM D-1622
COMPRESSIVE STRENGTH, psi (MPa)	10,000+ (70+)	ASTM D-1621
TENSILE STRENGTH, psi (MPa)	5100 (35)	ASTM D-638
SHEAR STRENGTH, psi (MPa)	10,000+ (70+)	ASTM D-732
FLEXURAL STRENGTH, psi (MPa)	10,000+ (70+)	ASTM D-790
WATER ABSORPTION (by volume)	<1%	ASTM D-2842
ELONGATION	8%	ASTM D-638
GEL TIME (ratio of 1:1 by volume)		
77°F (25°C)	45 seconds	—
50°F (10°C)	60 seconds	—

## Applications

Typical applications include:

- Ground consolidation in the event of fractured and unstable ground
- Sealing against water ingress
- Injection of rock bolts (see JM Cable Bolts)
- Ground stabilization
- Storm water systems, tunnels, manholes & underground vaults
- Concrete and earthen dams.

## Advantages

- Low viscosity product with good penetration into small fissures
- Non-flammable, non-toxic and does not contain any Volatile Organic Compounds (VOCs)
- Excellent adhesion, resistance and durability
- Ground cohesion quickly re-established under wet or dry conditions
- High flexibility, coherence maintained even in the event of strata movement
- Swells in the presence of water, suitable for stemming water ingress
- Full mechanical strength achieved very quickly, resulting in minimum disruption to workplace.

## Storage and Shelf Life

Product is moisture sensitive. Store product in original sealed containers at temperature range of 60 – 90° F (15 – 32°C). Opened containers must be handled properly to prevent moisture contamination. Shelf life is 12 months when properly stored.

Technical Data – PUR70 Polyurethane Resin

PHYSICAL PROPERTIES – LIQUID	RESIN A	RESIN B	TEST METHOD
VISCOSITY, cps	250	500	ASTM D-1638
SPECIFIC GRAVITY	1.23	1.10	ASTM D-1475
COLOR	Dark amber	Light amber	—
FLASH POINT, °F (°C)	>250 (121)	>250 (121)	ASTM D-92

# J-PLUG Acrylate Grout

J-PLUG Acrylate Grout is a fast reacting, low viscosity, acrylate polymer that is used to seal water leaks in concrete structures and stabilize soils. J-PLUG utilizes environmentally safe acrylic resins in conjunction with catalysts and accelerators. The system is typically pumped at a ratio of 1:1 (catalyst & water : resin & promoter), when controlling active water leaks and at higher ratios with water when ultra-low viscosity is needed to penetrate fine soil particles. At 1:1 ratio, the resulting product is a flexible elastomer, while at higher ratios of water to catalyst, a pliable gel results.

## Applications

J-PLUG is typically used to seal any leak below grade and applications include:

- Tunnels of all types
- Below grade parking garages
- Foundations
- Tanks, sewers, shafts
- Around large diameter pipes, cracked concrete and various failed construction joints.

## Advantages

- Super low viscosity
- Easy clean up (soap and water)
- Non Hazardous for shipping
- Non Hazardous when cured
- Economical
- Non-flammable
- Reaction is site *adjustable*

## Packaging, Storage and Mixing

J-PLUG Acrylate Grout is supplied in 275 gallon totes, 55 gallon drums and 5 gallon pails. The promoter and catalyst are supplied in plastic containers filled by weight as required. Materials should be stored above 40°F and below 80°F in plastic (or stainless steel) containers at all times and must be kept separated prior to use.

All equipment used to pump J-PLUG must be designed specifically for this acrylic formulation. Stainless steel pumps and equipment are required due to the corrosive nature of the materials. **Do not use aluminum components.** Catalyst and promoter components may form a toxic gas if mixed prior to field application.

### Technical Data – J-PLUG Acrylate Grout

PHYSICAL PROPERTIES	
VISCOSITY	5-8 cps mixed
SPECIFIC GRAVITY	1.2
ELONGATION	300%
BOILING POINT	>212°F
FREEZING POINT	32°F
PH	6.5-7.5

### SET TIME

% OF COMPLETE SOLUTION BY WEIGHT		SETTING TIME
CATALYST IN WATER	PROMOTER IN RESIN	
0.25	0.25	40 Minutes
0.50	0.50	15 Minutes
1.00	1.00	3 Minutes
2.00	2.00	30 Seconds

*Follow manufacturer's instructions carefully during mixing and application. Always wear protective clothing in accordance with current OSHA requirements. Avoid skin and eye contact. Do not ingest. Do not mix catalyst and promoter exclusively from other components.*

*Handling and Clean Up - Read MSDS and understand safety issues prior to use.*